INDIANA UNIVERSITY
College of Arts and Sciences
BLOOMINGTON, INDIANA

DEPARTMENT OF CHEMISTRY BOX C

July 22, 1959

Dr. Joshua Lederberg
Department of Genetics
Stanford University Medical School
Stanford, California

Dear Joshua:

Thank you for your prompt answer to my letter of July 10th. I was glad to learn that Dr. Nossal will be in this country. Following your suggestion I sent him an invitation to be one of the speakers on the planned symposium. Other invitations were sent to Lennox and Coons. I would be very glad if you would take over the role of the introductory speaker. Your paper in Science should make this role very easy to you. Since those principally interested in these problems will be the geneticists and since you are one of the few persons who worked in both fields, genetics and immunology, you are particularly well suited to familiarize the audience with the problems, solved and unsolved. Please let me know as soon as possible whether you will do us the favor of introducing this symposium by a talk of about 20-25 minutes.

You are asking in your letter of July 13, what my thoughts on selective antibody formation are. I like it better than Burnet's original idea of adaptive formation of antibody producing enzymes. However, I still believe that the evidence for the simple template mechanism is better. The crucial question is: "Is the continuous presence of antigen necessary for antibody formation?" Burnet says that it is unimaginable. I can only say that some antigens (polysaccharides) persist for years as shown by Felton, that we find injected labeled antigen as long as nine months after injection, that the radioactivity we find is protein-bound and is not in the form of amino acids, hence must be in the form of a derivative of the original label (S-35-sulfanilic acid or C-14-anthranilic acid). It is difficult for me to believe that the organism should have preformed antibodies to all the strange artifacts of chemical laboratories against which you can form antibodies. All this is easier understood if you assume that these chemicals or other fragments of the antigen are bound to the template of the γ-globulins, whatever the nature of this template may be. Burnet's views are to a high extent based on the difference between primary and secondafy response and on the belief that the organism shortly before the secondary response is free of antibody. We have disproved this assumption, as I will report at the meeting. We find with sensitive methods continual antibody formation even after a single intravenous injection of serum albumin or ovalbumin.

If, as I hope, you accept our invitation to introduce the symposium by discussing the current views, please send me before August 10 a short abstract, not exceeding 250 words. If the speakers want the full text published in the

Proceedings of the National Academy, the local committee will propose it. I personally believe that short abstracts are preferable in this case since so many symposia on immunology have been published recently, and since you and Talmage have discussed the pertinent problems in Science which is easily accessible to everybody. However, I would appreciate to have your opinion on this matter. Hoping to hear soon from you either by mail or phone (Office: EDison 6-6811, ext. 281; home EDison 2-1588) I am, with by best regards, also to Mrs. Lederberg,

sincerely yours,

Felix Haurowitz

FH:sf